November 20, 2002

RE: BWX Technologies, Inc 129-14948-00022
TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

BWX Technologies, Inc.
1400 Old Highway 69 South
Mount Vernon, Indiana 47620

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 129-14948-00022	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 20, 2002 Expiration Date: November 20, 2002

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary pressure vessel components, mine equipment and other large fabricated or machined components manufacturing source.

Authorized Individual:	Plant Manager
Source Address:	1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address:	1400 Old Highway 69 South, Mount Vernon, Indiana 47620
General Source Phone Number:	812 - 838 - 1088
SIC Code:	3443
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) natural gas or No. 2 distillate oil-fired boiler, identified as SM 7567, constructed in 1963, exhausted through Stack S01, rated at 26.5 million British thermal units per hour.

(b) One (1) natural gas-fired stress-relieving furnace, with car bottom, identified as SM 8252, exhausted through Stack S03, rated at 63 million British thermal units per hour, capacity: 750 tons per 48 hour run.

(c) One (1) natural gas-fired plate heating furnace, with car bottom, identified as SM 8251, exhausted through Stack S04, rated at 74 million British thermal units per hour, capacity: 200 tons per 18 hour run.

(d) One (1) natural gas-fired stress-relieving furnace, identified as SM 9425, exhausted through Stack S05, rated at 66 million British thermal units per hour, capacity: 320 tons per 30 hour run.

(e) One (1) natural gas-fired stress-relieving furnace, with car bottom, identified as SM 7495, exhausted through Stack S06, rated at 61 million British thermal units per hour.

(f) One (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, equipped with either a 3/8-inch or 1/2-inch nozzle, operating at a nozzle pressure of 100 pounds per square inch gauge, equipped with a baghouse for particulate matter control and exhausting to Stack S09, capacity: 330 actual cubic feet per minute maximum air flow and a process throughput of 14,515 pounds per hour.

(g) One (1) portable sand blast unit, identified as ME 1020, equipped with a 1/4-inch nozzle, operating at a nozzle pressure of 90 pounds per square inch gauge, capacity: 99 actual cubic feet per minute maximum compressed air flow and a process throughput of 13,559 pounds per hour.

(h) Nine (9) submerged arc welding stations, capacity: 8 pounds of wire per station per hour.

(i) Twenty (20) metal inert gas (MIG) welding stations, capacity: 5.5 pounds of wire per station per hour.

(j) Twenty (20) stick welding stations, capacity: 10 pounds of wire per station per hour.

(k) Sixteen (16) tungsten inert gas (TIG) welding stations, capacity: 1 pound of wire per station per hour.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(b) Space heaters, process heaters, or boilers using the following fuels: Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(c) Surface Coating of manufactured components at various locations during the manufacturing of components resulting in VOC emission estimated by the applicant of 3.0 tons per year by brushing, airless and low pressure air atomization. Annual coating usage is indicated as no more than 1,000 gallons per year. The total potential to emit calculations calculated in Appendix A are 1.89 tons per year PM or PM10, 1.59 tons per year VOC and 1.82 tons per year of total HAPs.

(d) Combustion source flame safety purging on startup.

(e) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

(f) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(g) The following VOC and HAP storage containers: Vessels storing lubrication oils, hydraulic oils, machining oils, and machining fluids.

(h) Application of oils, greases, lubricants or other nonvolatile material applied as temporary protective coatings.

(i) Machining where an aqueous cutting coolant continuously floods the machining interface.

(j) Closed loop heating and cooling systems.

(k) The following structural steel and bridge fabrication activities: Cutting 200,000 linear feet or less of one (1) inch plate or equivalent.

(l) The following structural steel and bridge fabrication activities: Using 80 tons or less of welding consumables.

(m) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.

(n) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.

(o) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(p) Paved and unpaved roads and parking lots with public access.

(q) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(r) Emergency generator as follows: Gasoline generators not exceeding 110 horsepower.

(s) Other emergency equipment as follows: Stationary fire pumps.

(t) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(u) Ultrasonic- Examination of material and welds:

Couplant - Hamikleer is used that contains:
Ethylene Glycol - 30 percent 349 pounds per year
Diethanolamine - 7.1 percent 82.6 pounds per year

(v) Electric gantry furnace, with 850 kilowatt electric heating, identified as F301, with 1160 cubic feet per minute nitrogen and 568.5 cubic feet per minute methanol injection to maintain an inert environment to prevent scaling during heating operation. The nitrogen and methanol are reported by the applicant to break down and result in a discharge of CO of 1 pound per hour.

(w) Quenching operations with heat treating operations.

(x) Manual grinding.

(y) One plasma burning robot, using nitrogen or argon/hydrogen for fuel with a maximum capacity of 120,000 linear inches of metal cut per year.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM , the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual"

as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ / Southwest Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Southwest Regional Office: 812-436-2570, facsimile 812-436-2572

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred and fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require

certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (± 2%) of full scale reading.

(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

(d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on

site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.19 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) One (1) natural gas or No. 2 distillate oil-fired boiler, identified as SM 7567, constructed in 1963, exhausted through Stack S01, rated at 26.5 million British thermal units per hour.

(b) One (1) natural gas-fired stress-relieving furnace, with car bottom, identified as SM 8252, exhausted through Stack S03, rated at 63 million British thermal units per hour, capacity: 750 tons per 48 hour run.

(c) One (1) natural gas-fired plate heating furnace, with car bottom, identified as SM 8251, exhausted through Stack S04, rated at 74 million British thermal units per hour, capacity: 200 tons per 18 hour run.

(d) One (1) natural gas-fired stress-relieving furnace, identified as SM 9425, exhausted through Stack S05, rated at 66 million British thermal units per hour, capacity: 320 tons per 30 hour run.

(e) One (1) natural gas-fired stress-relieving furnace, with car bottom, identified as SM 7495, exhausted through Stack S06, rated at 61 million British thermal units per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Fuel Usage Condition [326 IAC 2-8]

Pursuant to F 129-5597-00022, use of any fuel other than natural gas is permitted only under emergency gas curtailment conditions. This condition applies to all combustion facilities specified in this Section D.1, as well as all insignificant combustion facilities. Use of any fuel other than natural gas shall be reported by telephone or facsimile to the IDEM, OAQ / Southwest Regional Office within four (4) daytime business hours:

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Southwest Regional Office: 812-436-2570, facsimile 812-436-2572.

D.1.2 Particulate Limitation [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from the one (1) boiler, identified as SM 7567, shall in no case exceed 0.8 pounds of particulate per million British thermal units heat input.

D.1.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the 26.5 million British thermal units per hour oil-fired boiler shall not exceed five tenths (0.5) pounds per MMBtu heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

D.1.4 Nitrogen Oxides (NO_X) and Carbon Monoxide (CO) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

(a) Pursuant to 326 IAC 2-8-4, the total input of natural gas to all combustion facilities specified in this Section D.1, and all insignificant combustion facilities, shall be limited to less than 1,980 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month, which is equivalent to NO_X emissions of less than 99.0 tons per year, and CO emissions less than 83.2 tons per year. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

(b) For purposes of determining compliance based on NO_X emissions, each kilogallon of No. 2 fuel oil shall be equivalent to 0.200 million cubic feet of natural gas, and each kilogallon of propane shall be equivalent to 0.190 million cubic feet of natural gas.

Compliance Determination Requirements

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 26.5 million British thermal units per hour boiler, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the boiler stack exhaust (Stack S01) shall be performed once per shift during normal daylight operations when burning No. 2 oil and exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.7 Record Keeping Requirements

(a) To document compliance with Conditions D.1.3 and D.1.4, the Permittee shall maintain records in accordance with (1) through (6) below.

(1) Calendar dates covered in the compliance determination period;

(2) Actual fuel usage of each fuel used since last compliance determination period and equivalent sulfur dioxide and nitrogen oxide emissions;

(3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

(4) Fuel supplier certifications.

(5) The name of the fuel supplier; and

(6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the boiler stack exhaust once per shift.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

(a) A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The semi-annual natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(f) One (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, equipped with either a 3/8-inch or 1/2-inch nozzle, operating at a nozzle pressure of 100 pounds per square inch gauge, equipped with a baghouse for particulate matter control and exhausting to Stack S09, capacity: 330 actual cubic feet per minute maximum air flow and a process throughput of 14,515 pounds per hour.

(g) One (1) portable sand blast unit, identified as ME 1020, equipped with a 1/4-inch nozzle, operating at a nozzle pressure of 90 pounds per square inch gauge, capacity: 99 actual cubic feet per minute maximum compressed air flow and a process throughput of 13,559 pounds per hour.

(h) Nine (9) submerged arc welding stations, capacity: 8 pounds of wire per station per hour.

(i) Twenty (20) metal inert gas (MIG) welding stations, capacity: 5.5 pounds of wire per station per hour.

(j) Twenty (20) stick welding stations, capacity: 10 pounds of wire per station per hour.

(k) Sixteen (16) tungsten inert gas (TIG) welding stations, capacity: 1 pound of wire per station per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the allowable particulate emission rate from the one (1) shot blast unit, identified as SM 8293, shall not exceed 15.5 pounds per hour when operating at a process weight rate of 7.26 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the allowable particulate emission rate from the one (1) portable sand blast unit, identified as ME 1020, shall not exceed 14.8 pounds per hour when operating at a process weight rate of 6.78 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.2 Particulate Matter (PM and PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

(a) The PM emissions from the one (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, shall be limited to less than 43.53 pounds per hour, equivalent to 190.7 tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable.

(b) The PM_{10} emissions from the one (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, shall be limited to less than 11.67 pounds per hour, equivalent to 51.1 tons per year. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.2.3 Particulate Matter (PM and PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]

Pursuant to FESOP 129-5597-00022, the total welding consumables used at the nine (9) submerged arc welding stations, the twenty (20) metal inert gas (MIG) welding stations, the twenty (20) stick welding stations, and the sixteen (16) tungsten inert gas (TIG) welding stations shall not exceed 320 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, equivalent to PM and PM_{10} emissions of 3.20 tons per year. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.2.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the portable sand blast unit (ME 1020), the shot blast unit (SM 8293) and its control device.

Compliance Determination Requirements

D.2.5 Particulate Matter (PM)

Pursuant to FESOP 129-5597-00022, issued on June 19, 1997, and in order to comply with Conditions D.2.1 and D.2.2, the baghouse for PM control shall be in operation and control emissions from the shot blast unit (SM 8293) at all times that the shot blast unit is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the shot blast unit (SM 8293) stack exhaust (Stack S09) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps

in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the shot blast unit (SM 8293), at least once per shift when the shot blast unit is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.25 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.8 Baghouse Inspections

An inspection shall be performed within the last month of each calender quarter of all bags controlling the shot blast unit (SM 8293) when venting to the atmosphere. All defective bags shall be replaced.

D.2.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.10 Record Keeping Requirements

(a) To document compliance with Condition D.2.3, the Permittee shall maintain records of the total welding consumables used at the nine (9) submerged arc welding stations, the twenty (20) metal inert gas (MIG) welding stations, the twenty (20) stick welding stations, and the sixteen (16) tungsten inert gas (TIG) welding stations.

(a) To document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the shot blast unit (SM 8293) stack exhaust once per shift.

(b) To document compliance with Condition D.2.7, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation.

(c) To document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(b) Space heaters, process heaters, or boilers using the following fuels: Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, with a combined rating of 122.323 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(c) Surface Coating of manufactured components at various locations during the manufacturing of components resulting in VOC emission estimated by the applicant of 3.0 tons per year by brushing, airless and low pressure air atomization. Annual coating usage is indicated as no more than 1,000 gallons per year. The total potential to emit calculations calculated in Appendix A are 1.89 tons per year PM or PM10, 1.59 tons per year VOC and 1.82 tons per year of total HAPs.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, the particulate emissions from the one (1) insignificant boiler, installed in 1992, rated at 4.0 million British thermal units per hour, shall not exceed 0.45 pounds per million British thermal units.

This limitation was computed using the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. (Q = 30.5 million British thermal units per hour)

D.3.2 Volatile Organic Compounds (VOC)

Any change or modification which would increase the potential to emit of VOC from the insignificant surface coating operations to fifteen (15) pounds per day or more, may cause the source to be subject to the requirements of 326 IAC 8-2-9, and shall require prior approval from IDEM, OAQ.

Compliance Determination Requirements

There are no Compliance Determination Requirements applicable to these facilities.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no Compliance Monitoring Requirements applicable to these facilities.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.3 Record Keeping Requirements

(a) To document compliance with Conditions D.3.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.3.2.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each day;

(4) The total VOC usage for each day; and

(5) The weight of VOCs emitted for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: BWX Technologies, Inc.
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP No.: F 129-14948-00022

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: BWX Technologies, Inc.
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP No.: F 129-14948-00022

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
SEMI-ANNUAL NATURAL GAS-FIRED BOILER CERTIFICATION

Source Name: BWX Technologies, Inc.
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP No.: F 129-14948-00022

9	Natural Gas Only
9	Alternate Fuel burned
	From: _____ To: _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: BWX Technologies, Inc.
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP No.: F 129-14948-00022
Facilities: All combustion facilities
Parameter: Natural gas or equivalent burned (NOx)
Limit: Less than a total of 1,980 million cubic feet per twelve (12) consecutive month period with compliance determined at the end of each month, equivalent to NOx emissions of less than 99.0 tons per year, where each kilogallon of No. 2 fuel oil shall be equivalent to 0.200 million cubic feet of natural gas, and each kilogallon of propane shall be equivalent to 0.190 million cubic feet of natural gas.

YEAR: _____

Month	Natural gas or equivalent burned (million cubic feet)	Natural gas or equivalent burned (million cubic feet)	Natural gas or equivalent burned (million cubic feet)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: BWX Technologies, Inc.
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP No.: F 129-14948-00022
Facilities: The nine (9) submerged arc welding stations, the twenty (20) metal inert gas (MIG) welding stations, the twenty (20) stick welding stations, and the sixteen (16) tungsten inert gas (TIG) welding stations
Parameter: Tons of welding consumables (PM_{10})
Limit: Less than a total of 320 tons per twelve (12) consecutive month period with compliance determined at the end of each month equivalent to 3.20 tons of PM_{10} per year.

YEAR: _____

Month	Welding consumables used (tons)	Welding consumables used (tons)	Welding consumables used (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: BWX Technologies, Inc.
Source Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP No.: F 129-14948-00022

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: ______________________

Form Completed By: ____

Title/Position: ____

Date: ____

Phone: ____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document for
Federally Enforceable State Operating Permit (FESOP) Renewal

Source Name: **BWX Technologies, Inc.**
Source Location: **1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
County: **Posey**
FESOP: **F 129-14948-00022**
SIC Code: **3443**
Permit Reviewer: **Edward A. Longenberger**

On October 9, 2002 the Office of Air Quality (OAQ) had a notice published in the Mount Vernon Democrat, Mount Vernon, Indiana, stating that BWX Technologies, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) renewal to continue to operate a pressure vessel components, mine equipment and other large fabricated or machined components manufacturing source. The notice also stated that OAQ proposed to issue a FESOP renewal for this operation and provided information on how the public could review the proposed FESOP renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP renewal should be issued as proposed.

On November 11, 2002, Bill Parker of BWX Technologies, Inc. submitted comments on the proposed FESOP renewal. The comments are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded.**

Comment 1:

Section A.2(f) should read: capacity: 330 actual cubic feet per minute maximum air flow. Not sure what 14,515 pounds per hour is?

Section A.2(g) should read: capacity: 99 actual cubic feet per minute maximum compressed air flow. Not sure what 13,559 pounds per hour is?

Response 1:

The pounds per hour numbers represent the reported process throughput rate. Please note that this information is used for descriptive purposes only and does not constitute an enforceable limit. The emission unit descriptions are changed to clarify the capacities of the blast units as shown. The descriptions are also changed in Section D.2:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]
This stationary source consists of the following emission units and pollution control devices:

(f) One (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, equipped with either a 3/8-inch or 1/2-inch nozzle, operating at a nozzle pressure of 100 pounds per square inch gauge, equipped with a baghouse for particulate matter control and exhausting to Stack S09, capacity: 33**0**~~8~~ actual cubic feet per minute maximum air flow and **a process throughput of** 14,515 pounds per hour.

(g) One (1) portable sand blast unit, identified as ME 1020, equipped with a 1/4-inch nozzle, operating at a nozzle pressure of 90 pounds per square inch gauge, capacity: 99 actual cubic feet per minute maximum **compressed** air flow and **a process throughput of** 13,559 pounds per hour.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(f) One (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, equipped with either a 3/8-inch or 1/2-inch nozzle, operating at a nozzle pressure of 100 pounds per square inch gauge, equipped with a baghouse for particulate matter control and exhausting to Stack S09, capacity: 33**0**~~8~~ actual cubic feet per minute maximum air flow and **a process throughput of** 14,515 pounds per hour.

(g) One (1) portable sand blast unit, identified as ME 1020, equipped with a 1/4-inch nozzle, operating at a nozzle pressure of 90 pounds per square inch gauge, capacity: 99 actual cubic feet per minute maximum **compressed** air flow and **a process throughput of** 13,559 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 2:

Regarding Section A.3(c), in our original permit, dated June 19, 1997, this section showed our projected annual usage was estimated at no more than 1,000 gallons per year. The draft 2002 permit in section A.3(c) shows the annual coating usage as 263 gallons. We would like our new permit to show our annual usage at the 1,000 gallons as stated in our original permit.

Response 2:

This matter was addressed prior to the publication of public notice. The draft permit does indicate the 1,000 gallon annual usage. No change to the permit is made as a result of this comment.

Comment 3:

Page 1 of 15 “Source Definition” refers to Wartsila New Sulzer Diesel, Inc. as a tenant possessing their own air permit. This can be removed as they have vacated the property and cancelled their lease.

Response 3:

This comment refers to a statement made in the Technical Support Document for this permit. Since the IDEM, OAQ prefers not to amend the Technical Support Document after the thirty (30) day public comment period, this comment is addressed here in the Addendum to the Technical Support Document. No change to the permit is made as a result of this comment.

Comment 4:

Insignificant combustion source emissions to be added to our permit, because of the Wartsila New Sulzer Diesel, Inc. lease cancellation, are as follows:

Space Heaters			
No.	**Mfg.**	**Model**	**Btu/hr**
RT-3-A	Trane	YCD102B4LOCA	150,000
RT-3-B	Trane	YCC024F1LOBC	50,000
UH-3-A	Trane	GPND 020	200,000
MUA-1-B	Trane	DFOA230FNAB4AWQ13BOD	4,675,000
MUA-1-A	Trane	DFOQ230FNAB4AWQ13BOD	4,675,000
MJA-4-A	Trane	DFOA215FNABUCG13BOD	825,000
MAU-4-B	Trane	DFOA220FNB	1,425,000
AT-4-A	Applied Air	ATA-600/400 HC	4,000,000
Bldg. 6	Applied Air	ATA-600/400 HC	4,000,000
Bldg. 31	Reznor	XA 125	125,000
Bldg. 31	Reznor	XA 125	125,000
Bldg. 5A	Hartzell	DH 24	980,000
Total Rating			**21,230,000**

Response 4:

Sections A.3 and D.3 are amended as follows to include the new insignificant space heaters. No change to the natural gas fuel limit is necessary, the space heaters are covered under the existing annual limit of 1,980 million cubic feet of natural gas per year:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of **122.323** ~~101.093~~ million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(b) Space heaters, process heaters, or boilers using the following fuels: Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, with a combined rating of **122.323** ~~101.093~~ million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of **122.323** ~~101.093~~ million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(b) Space heaters, process heaters, or boilers using the following fuels: Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, with a combined rating of **122.323** ~~101.093~~ million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(c) Surface Coating of manufactured components at various locations during the manufacturing of components resulting in VOC emission estimated by the applicant of 3.0 tons per year by brushing, airless and low pressure air atomization. Annual coating usage is indicated as no more than 1,000 gallons per year. The total potential to emit calculations calculated in Appendix A are 1.89 tons per year PM or PM10, 1.59 tons per year VOC and 1.82 tons per year of total HAPs.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Upon further review, the OAQ has decided to make the following changes to the FESOP renewal. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

Change 1:

The general provisions; term of permit rule cite was added to Condition B.3 (Permit Term). In order to avoid confusion for renewals as to what is the “original” date IDEM, OAQ is referring to, the following change has been made:

B.3 Permit Term [326 IAC 2-7-5(2)] **[326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance** date of **this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

Change 2:

Since Condition B.8(c) (Duty to Supplement and Provide Information) already addresses confidentiality, the last sentence of (b) was revised to remove the statement about confidential information, and (c) was updated for clarity. Also, the condition was revised to change a rule reference. Subpart (c) references 326 IAC 17. This rule was repealed by the Air Pollution Control Board on January 26, 2000. The new rule reference has been added as follows:

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]~~

(c) **For information furnished by the Permittee to IDEM, OAQ,** the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.~~1~~ When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

Change 3:

The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from Condition B.15 to Condition B.14. In Condition B.14 (Emergency Provisions), the statement at the end of (b)(4) has been removed, because this is added as (h) as follows:

B.14 Emergency Provisions [326 IAC 2-8-12]

(b) (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

~~Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]~~

(h) **The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.**

Change 4:

Condition B.15(c) (Deviations from Permit Requirements and Conditions), has been deleted and was incorporated as Condition B.14(h) (Emergency Provisions).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

~~(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

Change 5:

Condition B.18 (Permit Amendment or Revision) has been revised to replace "should" with "shall" in (b) as follows:

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application ~~should~~ **shall** be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Change 6:

In order to be consistent with 326 IAC 2-8-15 (a)(5), the rule cite has been revised in Condition B.19(a)(5) B.19 (Operational Flexibility). Condition B.19(b) has been removed, because this is a Part 70 requirement, but not a FESOP requirement.

B.19 Operational Flexibility [326 IAC 2-8-15] **[326 IAC 2-8-11.1]**

(a) (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)**(2)**, (c)(1), and (d).

~~(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:~~

~~(1) A brief description of the change within the source;~~

~~(2) The date on which the change will occur;~~

~~(3) Any change in emissions; and~~

~~(4) Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

Change 7:

Condition B.22 (c) (Transfer of Ownership or Operational Control) has had the rule cite corrected as follows.

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-~~11~~ **10**(b)(3)]

Change 8:

326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-8; therefore, this rule cite is being added to Condition B.23. Also, the section and phone number of who the Permittee can contact has been corrected in Condition B.23(c) as follows.

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] **[326 IAC 2-1.1-7]**

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-~~0425~~ **4320** (ask for OAQ, ~~Technical Support and Modeling Section~~ **I/M & Billing Section)**, to determine the appropriate permit fee.

Change 9:

Condition C.1 (Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour) has been added to the FESOP as follows. All subsequent Section C conditions have been renumbered.

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

Change 10:

Condition C.9(e) (Asbestos Abatements Projects) has been revised to correct the rule cite as follows:

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-~~4~~**1**, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

Change 11:

The following was added to Condition C.11 (Compliance Requirements) to state what IDEM, OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements as follows:

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Change 12:

Condition C.14(c) was added to address pH better and removed pH from (b) as follows:

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(b) Whenever a condition in this permit requires the measurement of a temperature, **or** flow rate, ~~or pH level,~~ the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

~~(c)~~ **(d)** The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Change 13:

In Condition C.17(e) (Compliance Response Plan - Preparation, Implementation, Records, and Reports), the rule cite was corrected to reflect the FESOP rules instead of the Title V rules.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of ~~326 IAC 2-7-16~~ **326 IAC 2-8-12** (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

Change 14:

Condition C.20(d) (General Reporting Requirements) has been revised to indicate all forms as follows:

(d) Unless otherwise specified in this permit, ~~any quarterly~~ **all** report**s** required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. ~~The reports do~~ **All reports do** require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Change 15:

An error was discovered in the propane equivalency. Also, at the request of the applicant, the fuel equivalencies were changed to be in terms of kilogallons, rather than gallons. This change was requested in order to maintain consistency with the original FESOP. Therefore, Condition D.1.4 is changed as shown:

D.1.4 Nitrogen Oxides (NO_X) and Carbon Monoxide (CO) [326 IAC 2-8-4][326 IAC 2-2] [40 CFR 52.21]

(a) Pursuant to 326 IAC 2-8-4, the total input of natural gas to all combustion facilities specified in this Section D.1, and all insignificant combustion facilities, shall be limited to less than 1,980 million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month, which is equivalent to NO_X emissions of less than 99.0 tons per year, and CO emissions less than 83.2 tons per year. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

(b) For purposes of determining compliance based on NO_X emissions, each **kilo**gallon of No. 2 fuel oil shall be equivalent to ~~0.0002~~ **0.200** million cubic feet of natural gas, and each **kilo**gallon of propane shall be equivalent to ~~0.00014~~ **0.190** million cubic feet of natural gas.

The quarterly report form is also amended to reflect this change:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name:	BWX Technologies, Inc.
Source Address:	1400 Old Highway 69 South, Mount Vernon, Indiana 47620
Mailing Address:	1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP No.:	F 129-14948-00022
Facilities:	All combustion facilities
Parameter:	Natural gas or equivalent burned (NOx)
Limit:	Less than a total of 1,980 million cubic feet per twelve (12) consecutive month period with compliance determined at the end of each month equivalent to NO_x emissions of less than 99.0 tons per year, where each **kilo**gallon of No. 2 fuel oil shall be equivalent to ~~0.0002~~ **0.200** million cubic feet of natural gas, and each **kilo**gallon of propane shall be equivalent to ~~0.00014~~ **0.190** million cubic feet of natural gas.

Change 16:

Conditions D.1.2 and D.3.1 were revised to remove “Matter” and “PM” from these conditions, because 326 IAC 6-2 is for Particulate Emissions not Particulate Matter Emissions:

D.1.2 Particulate ~~Matter~~ Limitation ~~(PM)~~ [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from the one (1) boiler, identified as SM 7567, shall in no case exceed 0.8 pounds of particulate ~~matter~~ per million British thermal units heat input.

D.3.1 Particulate ~~Matter (PM)~~ **[326 IAC 6-2-4]**

Pursuant to 326 IAC 6-2-4, the ~~PM~~ **particulate** emissions from the one (1) insignificant boiler, installed in 1992, rated at 4.0 million British thermal units per hour, shall not exceed 0.45 pounds per million British thermal units.

This limitation was computed using the following equation:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate ~~matter~~ emitted per million British thermal units (lb/MMBtu) heat input

Change 17:

The term oil-fueled was replaced with oil-fired in Condition D.1.3 as follows:

D.1.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the 26.5 million British thermal units per hour oil-~~fueled~~ **fired** boiler shall not exceed five tenths (0.5) pounds per MMBtu heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

Change 18:

In the Emergency Occurrence Report form, the first box on was revised to include the word "working" in order to be consistent with 326 IAC 2-8-12(b)(5) and the Emergency Provision as follows:

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)
- C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- C The Permittee must submit notice in writing or by facsimile within two (2) **working** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

Change 19:

The Natural Gas-Fired Boiler Certification has had the following wording changed as follows:

~~Attach a signed certification to complete this report~~. **A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report**.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	**BWX Technologies, Inc.**
Source Location:	**1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
County:	**Posey**
SIC Code:	**3443**
Operation Permit No.:	**F 129-14948-00022**
Permit Reviewer:	**Edward A. Longenberger**

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from BWX Technologies, Inc. relating to the operation of a pressure vessel components, mine equipment and other large fabricated or machined components manufacturing source. BWX Technologies, Inc. was issued FESOP 129-5597-00022 on June 19, 1997.

Source Definition

The BWX Technologies, Inc. site contains areas which are rented to tenants for processes which are unrelated to BWX Technologies, Inc. Wartsila New Sulzer Diesel, Inc. is reported by BWX Technologies, Inc. as having their own air permit.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) natural gas or No. 2 distillate oil-fired boiler, identified as SM 7567, installed in 1963, exhausted through Stack S01, rated at 26.5 million British thermal units per hour.

(b) One (1) natural gas-fired stress-relieving furnace, with car bottom, identified as SM 8252, installed in 1965, exhausted through Stack S03, rated at 63 million British thermal units per hour, capacity: 750 tons per 48 hour run.

(c) One (1) natural gas-fired plate heating furnace, with car bottom, identified as SM 8251, installed in 1965, exhausted through Stack S04, rated at 74 million British thermal units per hour, capacity: 200 tons per 18 hour run.

(d) One (1) natural gas-fired stress-relieving furnace, identified as SM 9425, installed in 1968, exhausted through Stack S05, rated at 66 million British thermal units per hour, capacity: 320 tons per 30 hour run.

(e) One (1) natural gas-fired stress-relieving furnace, with car bottom, identified as SM 7495, installed in 1963, exhausted through Stack S06, rated at 61 million British thermal units per hour.

(f) One (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, installed in 1965, equipped with either a 3/8-inch or 1/2-inch nozzle, operating at a nozzle pressure of 100 pounds per square inch gauge, equipped with a baghouse for particulate matter control and exhausting to Stack S09, capacity: 338 actual cubic feet per minute maximum air flow and 14,515 pounds per hour.

(g) One (1) portable sand blast unit, identified as ME 1020, equipped with a 1/4-inch nozzle, operating at a nozzle pressure of 90 pounds per square inch gauge, capacity: 99 actual cubic feet per minute maximum air flow and 13,559 pounds per hour.

(h) Nine (9) submerged arc welding stations, capacity: 8 pounds of wire per station per hour.

(i) Twenty (20) metal inert gas (MIG) welding stations, capacity: 5.5 pounds of wire per station per hour.

(j) Twenty (20) stick welding stations, capacity: 10 pounds of wire per station per hour.

(k) Sixteen (16) tungsten inert gas (TIG) welding stations, capacity: 1 pound of wire per station per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, with a combined rating of 101.093 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(b) Space heaters, process heaters, or boilers using the following fuels: Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour, with a combined rating of 101.093 million British thermal units per hour, including one (1) boiler, installed in 1992, rated at 4.0 million British thermal units per hour. [326 IAC 6-2-4]

(c) Surface Coating of manufactured components at various locations during the manufacturing of components resulting in VOC emission estimated by the applicant of 3.0 tons per year by brushing, airless and low pressure air atomization. Annual coating usage is indicated as no more than 1,000 gallons per year. The total potential to emit calculations calculated in Appendix A are 1.89 tons per year PM or PM10, 1.59 tons per year VOC and 1.82 tons per year of total HAPs.

(d) Combustion source flame safety purging on startup.

(e) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300

gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

(f) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(g) The following VOC and HAP storage containers: Vessels storing lubrication oils, hydraulic oils, machining oils, and machining fluids.

(h) Application of oils, greases, lubricants or other nonvolatile material applied as temporary protective coatings.

(i) Machining where an aqueous cutting coolant continuously floods the machining interface.

(j) Closed loop heating and cooling systems.

(k) The following structural steel and bridge fabrication activities: Cutting 200,000 linear feet or less of one (1) inch plate or equivalent.

(l) The following structural steel and bridge fabrication activities: Using 80 tons or less of welding consumables.

(m) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the owner/operator, that is, an on-site sewage treatment facility.

(n) Noncontact cooling tower systems with the following: Forced and induced draft cooling tower system not regulated under a NESHAP.

(o) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(p) Paved and unpaved roads and parking lots with public access.

(q) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(r) Emergency generator as follows: Gasoline generators not exceeding 110 horsepower.

(s) Other emergency equipment as follows: Stationary fire pumps.

(t) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(u) Ultrasonic- Examination of material and welds:

Couplant - Hamikleer is used that contains:
Ethylene Glycol - 30 percent 349 pounds per year
Diethanolamine - 7.1 percent 82.6 pounds per year

(v) Electric gantry furnace, with 850 kilowatt electric heating, identified as F301, with 1160 cubic feet per minute nitrogen and 568.5 cubic feet per minute methanol injection to maintain an inert environment to prevent scaling during heating operation. The nitrogen and methanol are reported by the applicant to break down and result in a discharge of CO of 1 pound per hour.

(w) Quenching operations with heat treating operations.

(x) Manual grinding.

(y) One plasma burning robot, using nitrogen or argon/hydrogen for fuel with a maximum capacity of 120,000 linear inches of metal cut per year.

Existing Approvals

(a) FESOP 129-5597-00022, issued June 19, 1997;

(b) AAF 129-8533-00022, issued July 10, 1997;

(c) MPR 129-9612-00022, issued June 23, 1998; and

(d) AAF 129-11513-00022, issued June 9, 2000.

All conditions from previous approvals were incorporated into this FESOP except the following:

(a) FESOP 129-5597-00022, issued June 19, 1997

Condition D.1.1, the requirement to limit total natural combustion to less than 1,407 million cubic feet per year, in order to limit NO_X emissions to less than one hundred (100) tons per year. This limit was based on the emission factor of 140 pounds of NO_X per million cubic feet of natural gas burned

1,407 MMcf x 140 lbs/MMcf / 2000 lbs/ton = 98.49 tons per year

Reason not incorporated: Based on the most recent AP-42 emission factor of 100 pounds of NO_X per million cubic feet of natural gas burned, the total input of natural gas shall be limited to less than 1,980 million cubic feet per twelve (12) consecutive month period in order to limit NO_X emissions from the entire source to less than one hundred (100) tons per year and thereby maintain FESOP status. The No. 2 fuel oil and propane fuel equivalencies were also updated to reflect the change in emission factors.

1,980 MMcf x 100 lbs/MMcf / 2000 lbs/ton = 99.0 tons per year

(b) FESOP 129-5597-00022, issued June 19, 1997

Condition D.1.2, the requirement to limit particulate emissions from boiler SM 7567 to less than 0.45 pounds per million British thermal units.

Reason not incorporated: The boiler was constructed in 1963 and located in Posey county, therefore, the boiler is subject to the requirements of 326 IAC 6-2-3. Pursuant to 326 IAC 6-2-3, the limit for boiler SM 7567 is calculated to be 2.44 pounds per million British thermal units, and shall not exceed 0.8 pounds per million British thermal units heat input, pursuant

to 326 IAC 6-2-3(d).

(c) FESOP 129-5597-00022, issued June 19, 1997

Condition D.2.2, the requirement to limit PM_{10} emissions from the blasting operations to less than 7.35 tons per month.

Reason not incorporated: The PM_{10} emissions from the portable blast unit will not be limited, and the PM_{10} emissions from the shot blast (SM 8293), after controls will be limited to less than 11.67 pounds per hour. According to Appendix A, the baghouse need only achieve 73.22% control efficiency to meet this limit, which is reasonable.

(d) FESOP 129-5597-00022, issued June 19, 1997

The frequency of the visible emissions notations required by Condition D.2.4 has been changed from daily to once per shift.

Reason: IDEM, OAQ, has determined that daily compliance monitoring is not sufficient to monitor continuous compliance with the applicable rules for these types of operations. Therefore, visible emissions will be required once per shift in the proposed permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on September 17, 2001. The application was received timely, more than nine (9) months before the June 19, 2002 expiration date of the original FESOP, therefore no enforcement referral is necessary.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 17 of 17 of Appendix A of this document for detailed emissions calculations.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	**Unrestricted Potential Emissions** (tons/year)
PM	354
PM_{10}	260
SO_2	59.9
VOC	11.2
CO	148
NO_X	332

Note: For the purpose of determining Title V applicability for particulates, PM_{10}, not PM, is the regulated pollutant in consideration.

HAPs	**Potential To Emit** (tons/year)
Arsenic	0.0005
Benzene	0.003
Beryllium	0.0003
Dichlorobenzene	0.002
Formaldehyde	0.095
Glycol Ethers	0.463
Hexane	2.29
MEK	0.071
Methanol	0.051
Phenol	0.081
Selenium	0.002
Toluene	0.858
Xylene	0.301
Lead Compounds	0.002
Cadmium Compounds	0.002
Chromium Compounds	0.002
Manganese Compounds	0.001
Mercury Compounds	0.0003
Nickel Compounds	0.003
TOTAL	4.23

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM_{10}, CO and NO_X are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source, issued a FESOP on June 19, 1997, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F 129-5597-00022; issued on June 19, 1997).

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
All Combustion Units (Worst Case)[(a)]	2.83	7.52	59.9	5.45	83.2	99.0	1.87
Shot Blast Building (SM 8293)[(b)]	67.9	51.1	-	-	-	-	-
Portable Blasting Unit (ME 1020)[(c)]	50.3	35.2	-	-	-	-	-
Welding[(d)]	3.20	3.20	-	-	-	-	-
Non-Combustion Insignificant Activities	2.98	2.98	-	1.81	4.38	0.459	1.82
Total PTE After Issuance	127	Less than 100	59.9	7.26	87.6	99.5	Single less than 10 Total less than 25

(a) The combustion units are limited to a total of less than 1,980 million cubic feet of natural gas per twelve (12) consecutive month period.

(b) The PM_{10} emissions from the shot blast unit (SM 8293) shall be limited to less than 11.67 pounds per hour, equivalent to 51.1 tons per year. The PM emissions are limited to less than 15.5 pounds per hour, equivalent to 67.9 tons per year.

(c) The emissions for the portable shot blast (ME 1020) represent the unrestricted potential to emit.

(d) Pursuant to FESOP 129-5597-00022, the total welding consumables used at the nine (9) submerged arc welding stations, the twenty (20) metal inert gas (MIG) welding stations, the twenty (20) stick welding stations, and the sixteen (16) tungsten inert gas (TIG) welding stations shall not exceed 320 tons per twelve (12) consecutive month period, equivalent to PM and PM_{10} emissions of 3.20 tons per year.

County Attainment Status

The source is located in Posey County.

Pollutant	Status
PM_{10}	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Posey County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) There are still no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) The one (1) boiler, constructed in 1963, identified as SM 7567, is still not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.40c, Subpart Dc), because it was constructed before the applicability date of June 9, 1989.

(c) The BWX Technologies, Inc. site containing six (6) 30,000 gallon liquid propane gas storage tanks, which the applicant has indicated are leased to Country Mark Cooperative for the storage of butanes for a separately permitted and unrelated activity. The applicant has indicated that these tanks could be used by the applicant for the purpose of providing propane mixed with air to replace natural gas in a gas curtailment. These tanks are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb - Standard of Performance for Volatile Organic Liquid Storage Vessels Constructed After July 23, 1984) because the Subpart does not apply to pressure vessels designed to operate in excess of 204.9 kilopascals (29.71 pounds per square inch) and without emissions to the atmosphere. In addition, a similar exclusion exempts the tanks from the possible application of 40 CFR Part 60.110 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction and Modification Commenced After June 11, 1973 and Prior to May 19, 1978 and 40 CFR Part 60.110a, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction and Modification Commenced after May 18, 1978

and Prior to July 23, 1984 for earlier periods of construction. The exclusion for the tanks covered by these regulations is expressed as 15 pounds per square inch gauge.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

Pursuant to FESOP 129-5597-00022, issued June 19, 1997, the one (1) boiler, identified as SM 7567, the one (1) natural gas-fired stress-relieving furnace, identified as SM 8252, the one (1) natural gas-fired plate heating furnace, identified as SM 8251, the one (1) natural gas-fired stress-relieving furnace, identified as SM 9425, the one (1) natural gas-fired stress-relieving furnace, identified as SM 7495, and all insignificant combustion facilities shall use only natural gas as fuel except during emergency gas curtailment conditions. Use of fuel other than natural gas shall be reported to the Office of Air Quality within four (4) daytime business hours.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

Construction of the one (1) boiler, identified as SM 7567, the one (1) natural gas-fired stress-relieving furnace, identified as SM 8252, the one (1) natural gas-fired plate heating furnace, identified as SM 8251, the one (1) natural gas-fired stress-relieving furnace, identified as SM 9425, the one (1) natural gas-fired stress-relieving furnace, identified as SM 7495, and the one (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, that commenced prior to August 7, 1977 was not subject to the PSD requirements of 326 IAC 2-2.

This source is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, and PM emissions are limited to less than 250 tons per year by 326 IAC 6-3-2. Pursuant to 326 IAC 2-8-4, emissions of PM_{10}, CO and NO_X are limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply, and this source is a minor source with respect to this rule.

The PM emissions from the one (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, will be limited to less than 43.53 pounds per hour, equivalent to 190.7 tons per year. This limit will ensure that PM emissions are less than 250 tons per year. Compliance with the PM limit of 15.5 pounds per hour prescribed by 326 IAC 6-3-2 will ensure compliance with this limit.

326 IAC 2-6 (Emission Reporting)

This source is located in Posey County and the potential to emit of PM_{10}, CO and NO_X are each less than one hundred (100) tons per year. Therefore 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM_{10}, CO and NO_X shall be limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

(a) The applicant has accepted a total source natural gas fuel limit of less than 1,980 million cubic feet per twelve (12) consecutive month period, which is equivalent to NO_X emissions less than 99.0 tons per year, based on the AP-42 emission factor of 100 pounds of NO_X per million cubic feet of natural gas burned:

1,980 MMcf x 100 lbs/MMcf / 2000 lbs/ton = 99.0 tons per year

For purposes of determining compliance based on NO_X emissions, each gallon of No. 2 fuel oil shall be equivalent to 0.0002 million cubic feet of natural gas, and each gallon of propane shall be equivalent to 0.00014 million cubic feet of natural gas.

Based on this fuel limit, the worst case potential to emit CO would be:

1,980 MMcf x 84 lbs/MMcf / 2000 lbs/ton = 83.2 tons per year

Therefore, compliance with the total source natural gas fuel limit of less than 1,980 million cubic feet per twelve (12) consecutive month period will ensure that CO emissions are less than one hundred (100) tons per year.

(b) The PM_{10} emissions from the one (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, after controls, shall be limited to less than 11.67 pounds per hour, equivalent to 51.1 tons per year.

(c) Pursuant to FESOP 129-5597-00022, the total welding consumables used at the nine (9) submerged arc welding stations, the twenty (20) metal inert gas (MIG) welding stations, the twenty (20) stick welding stations, and the sixteen (16) tungsten inert gas (TIG) welding stations shall not exceed 320 tons per twelve (12) consecutive month period, equivalent to PM_{10} emissions of 3.20 tons per year.

Compliance with the above limits will make the requirements of 326 IAC 2-7 not applicable. The limits also render the requirements of 326 IAC 2-2 not applicable.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-2-3 (Particulate Emissions Limitations for Facilities Constructed prior to September 21, 1983)

The one (1) boiler, identified as SM 7567, constructed in 1963, rated at 26.5 million British thermal units per hour, must comply with the PM emission limitation of 326 IAC 6-2-3. This limitation is based on the following equation given in 326 IAC 6-2-3:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet.

For the one (1) boiler:

$Pt = 50 \times 0.67 \times 65.0 / 76.5 \times (26.5)^{0.75} \times 1^{0.25} = 2.44$ lb/MMBtu

Pursuant to 326 IAC 6-2-3(d), Pt for all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972 shall not exceed 0.8 pounds per million British thermal units. Therefore, the one (1) boiler is limited to emissions of 0.8 pounds per million British thermal units.

Based on Appendix A, the total potential to emit of PM from the one (1) boiler is 1.66 tons per year.

1.66 tons/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.379 lbs/hr
(0.379 lbs/hr / 26.5 MMBtu/hr) = 0.014 lbs PM per MMBtu

Therefore, the one (1) boiler, identified as SM 7567, will comply with this rule.

326 IAC 6-2-4 (Particulate Emissions Limitations for Facilities Constructed after September 21, 1983)

The one (1) insignificant boiler, installed in 1992, rated at 4.0 million British thermal units per hour must comply with the requirements of 326 IAC 6-2-4. The emission limitations are based on the following equation given in 326 IAC 6-2-4:

$$Pt = 1.09/Q^{0.26}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity

is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

The total heat input capacity for the source, including the 4.0 million British thermal units per hour insignificant boiler, is 30.5 million British thermal units per hour.

$Pt = 1.09/(30.5)^{0.26} = 0.45$ lb/MMBtu heat input

Based on Appendix A, the worst case potential PM emission rate from this boiler is:

0.133 ton/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.030 lb/hr
(0.030 lb/hr / 4.0 MMBtu/hr) = 0.008 lb PM per MMBtu

Therefore, the one (1) insignificant boiler, installed in 1992, will comply with this rule.

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

(a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the allowable particulate emission rate from the one (1) shot blast unit, identified as SM 8293, shall not exceed 15.5 pounds per hour when operating at a process weight rate of 7.26 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The baghouse shall be in operation at all times the one (1) shot blast unit, identified as SM 8293 is in operation, in order to comply with this limit.

(b) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the allowable particulate emission rate from the one (1) portable sand blast unit, identified as ME 1020, shall not exceed 14.8 pounds per hour when operating at a process weight rate of 6.78 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The potential particulate emissions from the one (1) portable sand blast unit, identified as ME 1020, are 11.5 pounds per hour, which is less than the allowable emission rate of 14.8 pounds per hour. Therefore, the one (1) portable sand blast unit, identified as ME 1020, is in compliance with this rule.

(c) Pursuant to 326 IAC 6-3-1, each of the nine (9) submerged arc welding stations, the twenty (20) metal inert gas (MIG) welding stations, the twenty (20) stick welding stations, and the sixteen (16) tungsten inert gas (TIG) welding stations are exempt from the particulate emission limitations of 326 IAC 6-3, because each welding station has a capacity less than

six hundred twenty-five (625) pounds of rod or wire consumed per day.

(d) Pursuant to 326 IAC 6-3-1, the insignificant surface coating operations are exempt from the particulate emission limitations of 326 IAC 6-3, because the operations use less than five (5) gallons of coating per day.

(e) There are no process emissions from the one (1) furnace, identified as SM 8252, the one (1) furnace, identified as SM 8251, the one (1) furnace, identified as SM 9425, or the one (1) furnace, identified as SM 7495, only combustion emissions.

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

The one (1) boiler, identified as SM 7567, firing No. 2 oil as backup fuel, rated at 26.5 million British thermal units per hour, is subject to the requirements of 326 IAC 7-1.1, since the potential to emit of SO_2 is greater than twenty-five (25) tons per year.

Pursuant to this rule, SO_2 emissions from the combustion of No. 2 distillate fuel oil shall not exceed 0.5 pounds per million British thermal units heat input (the equivalent of 0.5 percent sulfur content at a higher heating value of 140,000 British thermal units per gallon and a maximum heat input rate of 26.5 million British thermal units per hour).

326 IAC 7-2-1 (Sulfur Dioxide Compliance: reporting and methods to determine compliance)

Reports of calendar month or annual average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate shall be provided upon request to the Office of Air Quality.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The insignificant surface coating operations are not subject to the requirements of 326 IAC 8-2-9, because the potential to emit of VOC is less than fifteen (15) pounds per day.

Testing Requirements

No testing was required by FESOP 129-5597-00022. All emission calculations were based on AP-42 emission factors and/or the MSDS for the coatings. Therefore, no testing is required.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a

source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP. The compliance monitoring requirements applicable to this source are as follows:

The one (1) shot blast unit equipped with abrasive blast room, identified as SM 8293, has applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the shot blast stack exhaust (Stack S09) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the shot blast SM 8293, at least once per shift when the shot blast is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.25 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) An inspection shall be performed within the last month of each calender quarter of all bags controlling the shot blast SM 8293. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this proposed permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this proposed permit

(Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the shot blast SM 8293 must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this pressure vessel components, mine equipment and other large fabricated or machined components manufacturing source shall be subject to the conditions of the attached proposed FESOP No.: **F 129-14948-00022**.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Boiler ID: SM 7567

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
26.5000	232.14

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.221	0.882	0.070	11.6	0.638	9.75

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions
Boiler ID: SM 7567

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.44E-04	1.39E-04	8.71E-03	2.09E-01	3.95E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	5.80E-05	1.28E-04	1.62E-04	4.41E-05	2.44E-04	0.219

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil
Boiler ID: SM 7567

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
26.5	1658.142857	0.5

	Pollutant				
	PM*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	71 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	1.66	58.9	16.6	0.282	4.15

Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

See page 4 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil
HAPs Emissions
Boiler ID: SM 7567

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

HAPs - Metals

	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	4.64E-04	3.48E-04	3.48E-04	3.48E-04	1.04E-03

HAPs - Metals (continued)

	Mercury	Manganese	Nickel	Selenium	Total
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05	HAPs
Potential Emission in tons/yr	3.48E-04	6.96E-04	3.48E-04	1.74E-03	5.69E-03

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emission Calculations
LPG-Propane - Industrial Boilers
(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)
Boiler ID: SM 7567

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	SO2 Emission factor = 0.10 x S S = Sulfur Content =
26.50	2537.05	0.18

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.6	0.6	0.018 *(0.10S)*	19.0	0.5	1.9
Potential Emission in tons/yr	0.761	0.761	0.023	24.10	0.634	2.410

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.
**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
(Source - AP-42 (Supplement B 10/96) page 1.5-1)
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
264.0000	2312.64

Unit ID	Rating (mmBtu/hr)
SM-8252	63.0
SM-8251	74.0
SM-9425	66.0
SM-7495	61.0
Total	**264.0**

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	2.20	8.79	0.694	116	6.36	97.1

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 7 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: **BWX Technologies, Inc.**
Address City IN Zip: **1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
FESOP: **129-14948**
Plt ID: **129-00022**
Reviewer: **Edward A. Longenberger**
Date: **September 17, 2001**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.43E-03	1.39E-03	8.67E-02	2.08E+00	3.93E-03

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	5.78E-04	1.27E-03	1.62E-03	4.39E-04	2.43E-03	2.182

Methodology is the same as page 6.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
LPG-Propane - Industrial
(Heat input capacity: > 10 MMBtu/hr and < 100 MMBtu/hr)

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Unit ID	Rating (mmBtu/hr)
SM-8252	63.0
SM-8251	74.0
SM-9425	66.0
SM-7495	61.0
Total	**264.0**

Heat Input Capacity MMBtu/hr: 264.00

Potential Throughput kgals/year: 25274.75

SO2 Emission factor = 0.10 x S
S = Sulfur Content = 0.18

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.6	0.6	0.018 *(0.10S)*	19.0	0.5 **TOC value	1.9
Potential Emission in tons/yr	7.582	7.582	0.227	240.11	6.319	24.011

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.
**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
(Source - AP-42 (Supplement B 10/96) page 1.5-1)
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Insignificant Activities

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
101.0930	885.57

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.841	3.37	0.266	44.3	2.44	37.2

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 10 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: **BWX Technologies, Inc.**
Address City IN Zip: **1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
FESOP: **129-14948**
Plt ID: **129-00022**
Reviewer: **Edward A. Longenberger**
Date: **September 17, 2001**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.30E-04	5.31E-04	3.32E-02	7.97E-01	1.51E-03

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.21E-04	4.87E-04	6.20E-04	1.68E-04	9.30E-04	0.836

Methodology is the same as page 9.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
LPG-Propane - Commercial
(Heat input capacity: > .3 MMBtu/hr and < 10 MMBtu/hr)
Insignificant Activities

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	SO2 Emission factor = 0.10 x S S = Sulfur Content =	0.18
101.0930	9678.41		

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.4	0.4	0.0 *(0.10S)*	14.0	0.5 **TOC value	1.9
Potential Emission in tons/yr	1.936	1.936	0.087	67.75	2.420	9.194

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.
**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
(Source - AP-42 (Supplement B 10/96) page 1.5-1)
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

Appendix A: Emission Calculations
Abrasive Blasting
SM 8293

Company Name: **BWX Technologies, Inc.**
Address City IN Zip: **1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
FESOP: **129-14948**
Plt ID: **129-00022**
Reviewer: **Edward A. Longenberger**
Date: **September 17, 2001**

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

	Nozzle Pressure (psig)							
Internal diameter, in	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)

FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =	1265
D = Density of abrasive (lb/ft3) From Table 2 =	487
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.5
ID1 = Nozzle internal diameter (in) from Table 3 =	0.5

Flow Rate (FR) (lb/hr) = **6222.778** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.010
FR = Flow Rate (lb/hr) =	6222.778
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	1

Uncontrolled Emissions =	**62.23**	**lb/hr**	**PM**
	272.56	**ton/yr**	**PM**
	43.56	**lb/hr**	**PM-10**
	190.79	**ton/yr**	**PM-10**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N

Appendix A: Emission Calculations
Abrasive Blasting
ME 1020 Portable Shot Blast Unit

Company Name: **BWX Technologies, Inc.**
Address City IN Zip: **1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
FESOP: **129-14948**
Plt ID: **129-00022**
Reviewer: **Edward A. Longenberger**
Date: **September 17, 2001**

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

	Nozzle Pressure (psig)							
Internal diameter, in	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)	
FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =	280
D = Density of abrasive (lb/ft3) From Table 2 =	99
D1 = Density of sand (lb/ft3) =	99
ID = Actual nozzle internal diameter (in) =	0.25
ID1 = Nozzle internal diameter (in) from Table 3 =	0.25

Flow Rate (FR) (lb/hr) = **280.000** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.041
FR = Flow Rate (lb/hr) =	280.000
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	1

Uncontrolled Emissions =	**11.48**	**lb/hr**	**PM**
	50.28	**ton/yr**	**PM**
	8.04	**lb/hr**	**PM-10**
	35.20	**ton/yr**	**PM-10**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: **BWX Technologies, Inc.**
Address City IN Zip: **1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
FESOP: **129-14948**
Plt ID: **129-00022**
Reviewer: **Edward A. Longenberger**
Date: **September 17, 2001**

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
WAFA-24-083	10.52	54.04%	42.0%	12.0%	53.1%	29.23%	41.25	0.0020	2.69	1.26	0.10	2.48	0.45	0.86	4.33	50%
SC-1090-1	9.30	56.76%	43.5%	13.3%	48.6%	41.23%	10.00	0.0010	2.40	1.23	0.01	0.29	0.05	0.00	2.99	100%
Bitumastic 300M	10.72	17.40%	0.0%	17.4%	0.0%	74.10%	9.00	0.0005	1.87	1.87	0.01	0.20	0.04	0.09	2.52	50%
340 Gold Primer	14.02	83.50%	0.0%	83.5%	0.0%	67.50%	2.00	0.0005	11.71	11.71	0.01	0.28	0.05	0.00	17.34	50%
2000 Thinner	7.23	100.00%	0.0%	100.0%	0.0%	0.00%	5.00	0.0005	7.23	7.23	0.02	0.43	0.08	0.00	N/A	50%
#801 Semi-Gloss	12.60	13.80%	0.0%	13.8%	0.0%	77.10%	5.00	0.0040	1.74	1.74	0.03	0.83	0.15	0.48	2.26	50%
#4 Solvent	7.42	100.00%	0.0%	100.0%	0.0%	0.00%	1.25	0.0040	7.42	7.42	0.04	0.89	0.16	0.00	N/A	50%
#858 Zinc Epoxy	25.24	35.90%	0.0%	35.9%	0.0%	64.10%	13.00	0.0010	9.06	9.06	0.12	2.80	0.51	0.46	14.14	50%
#33 Thinner	7.41	100.00%	0.0%	100.0%	0.0%	0.00%	3.00	0.0010	7.41	7.41	0.02	0.53	0.10	0.00	N/A	50%
								PM	Control Efficiency	0.00%						
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**0.36**	**8.72**	**1.59**	**1.89**		
									Controlled		**0.36**	**8.72**	**1.59**	**1.89**		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MEK	Weight % Phenol	Weight % Glycol Ethers	Weight % Methanol	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	MEK Emissions (tons/yr)	Phenol Emissions (tons/yr)	Glycol Ethers Emissions (tons/yr)	Methanol Emissions (tons/yr)
WAFA-24-083	10.52	41.25	0.0020	0.00%	0.00%	0.00%	0.00%	6.00%	0.00%	0.000	0.000	0.000	0.000	0.226	0.000
SC-1090-1	9.30	10.00	0.0010	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.000	0.000	0.000	0.000	0.000	0.040
Bitumastic 300M	10.72	9.00	0.0005	35.00%	0.00%	0.00%	5.00%	0.00%	5.00%	0.072	0.000	0.000	0.010	0.000	0.010
340 Gold Primer	14.02	2.00	0.0005	15.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.009	0.000	0.000	0.000	0.000	0.000
2000 Thinner	7.23	5.00	0.0005	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.078	0.000	0.000	0.000	0.000	0.000
#801 Semi-Gloss	12.60	5.00	0.0040	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.000	0.000	0.000	0.000	0.110	0.000
#4 Solvent	7.42	1.25	0.0040	0.00%	0.00%	0.00%	0.00%	60.00%	0.00%	0.000	0.000	0.000	0.000	0.097	0.000
#858 Zinc Epoxy	25.24	13.00	0.0010	10.00%	60.00%	5.00%	5.00%	0.00%	0.00%	0.142	0.854	0.071	0.071	0.000	0.000
#33 Thinner	7.41	3.00	0.0010	0.00%	0.00%	0.00%	0.00%	30.00%	0.00%	0.000	0.000	0.000	0.000	0.029	0.000
									Individual Total	**0.301**	**0.854**	**0.071**	**0.081**	**0.463**	**0.051**
METHODOLOGY									**Overall Total**	**1.82**					

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Welding & Cutting of Metal

Company Name: **BWX Technologies, Inc.**
Address City IN Zip: **1400 Old Highway 69 South, Mount Vernon, Indiana 47620**
FESOP: **129-14948**
Plt ID: **129-00022**
Reviewer: **Edward A. Longenberger**
Date: **September 17, 2001**

Welding

Type	Stations	Consumables	Consumption	
		(lbs/hr)	(lbs/hr)	(tons/yr)
Submerged arc	9	8.0	72	315
Metal inert gas	20	5.5	110	482
Stick	20	10.0	200	876
Tungsten inert gas	16	1.0	16	70.1
		Total	398	1743

Welding level	1743	tons/yr
Percent converted to fumes (PM & PM10)	1.0%	
PM Emissions	17.4	tons/yr

Insignificant Level Welding

Welding insignificant level	80	tons/yr
Percent converted to fumes (PM & PM10)	1.0%	
PM Emissions	0.800	tons/yr

Revised Limit

Welding level	26.7	320	tons/yr
Percent converted to fumes (PM & PM10)		1.0%	
PM Emissions		3.200	tons/yr

Cutting

Cutting equivalent depth	1	in
Cutting equivalent length	200000	feet/yr
Assumed width	0.125	in
Volume cut	173.6	ft3/yr
Material density	1250	lb/ft3
Material cut	109	ton/yr
Percent converted to fumes (PM & PM10)	1.0%	
PM Emissions	1.09	tons/yr

Total PM Emissions from Welding and Cutting	1.89	tons/yr

Appendix A: Emissions Calculations
Total Source Emissions Summary

Company Name: BWX Technologies, Inc.
Address City IN Zip: 1400 Old Highway 69 South, Mount Vernon, Indiana 47620
FESOP: 129-14948
Plt ID: 129-00022
Reviewer: Edward A. Longenberger
Date: September 17, 2001

	Heat Input (MMBtu/hr)	Pollutant PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)
26.5 MMBtu/hr Boiler (SM 7567)							
Natural Gas		0.221	0.882	0.070	11.600	0.638	9.750
No.2 Oil		1.660	1.660	58.900	16.600	0.282	4.150
Propane		0.761	0.761	0.023	24.100	0.634	2.410
Worst Case	**26.5**	**1.66**	**1.66**	**58.9**	**24.1**	**0.638**	**9.75**
Other Significant Combustion Sources							
Natural Gas		2.200	8.790	0.694	116.000	6.360	97.100
Propane		7.582	7.582	0.227	240.110	6.319	24.011
Worst Case	**264**	**7.58**	**8.79**	**0.694**	**240**	**6.36**	**97.1**
Total Significant Combustion	**290.5**	**9.24**	**10.5**	**59.6**	**264**	**7.00**	**107**
Insignificant Combustion							
Natural Gas		0.841	3.370	0.266	44.300	2.440	37.200
Propane		1.936	1.936	0.087	67.750	2.420	9.194
Worst Case	**104.463**	**1.94**	**3.37**	**0.266**	**67.8**	**2.44**	**37.2**
Sum Worst Case Combustion	**394.963**	**11.2**	**13.8**	**59.9**	**332**	**9.44**	**144**
Shot Blast Building SM 8293		273	191				
ME 1020 Portable Blasting		50.3	35.2				
Welding		17.4	17.4				
Sum Comb + Blasting + Welding		**351**	**257**	**59.9**	**332**	**9.44**	**144**
Other Insignificant					0.459	0.216	4.38
Surface Coating		1.89	1.89			1.59	
Cutting		1.09	1.09				
Sum Non Combustion Insignificant		**2.98**	**2.98**		**0.459**	**1.81**	**4.38**
Sum Entire Source		**354**	**260**	**59.9**	**332**	**11.2**	**148**